

## **REMARKS/ARGUMENTS**

Claims 1-26, 29-42, and 44-48 remain in this application.

### **§103 Rejections**

Examiner has rejected Claims 1-12, 38-43 and 47-48 under 35 U.S.C. 103(a) as being unpatentable over JP 2000-44269 (or Koaizawa 6,543,257) in view of Drouart 5,931,984, Kaiser 4,030,901, Ryoji JP 02212325, Gilbreath 6,447,017, Haney 4,347,069 and Collins 5,408,865.

According to the Examiner, "Gilbreath, Haney and Collins are cited as evidence that o-rings and washers are equivalent sealing devices." Applicants respectfully disagree that these three references indicate that o-rings and washers are "equivalent".

Contrary to the Examiner's assertions, none of the references cited by the Examiner indicate that o-rings or/and washers are equivalents. Simply because two items are mentioned in the same sentence does not mean they are equivalent.

As further evidence that o-rings are not equivalent to washers, submitted herewith are definitions of o-ring and washer from Websters Third New International Dictionary (copyright 1993). O-ring is defined as "a flat ring of synthetic rubber used as a gasket in sealing a joint against high pressures." Washer is defined as "any of various flat thin rings or perforated plates (as of metal or leather) used in joints for assemblies to ensure tightness, prevent leakage, or relieve friction." The definition of o-ring is consistent with the use of the o-ring in Koaizawa, i.e., as a sealing gasket. Clearly, o-rings and washers are not equivalents.

According to the Examiner, "the invention as claimed is known as per Koaizawa Figure 1, in columns 3-4. However at column 4, lines 50-62 Koaizawa discloses an o-ring rather than the claimed washer. In view of the six secondary references, it would have been obvious to place a sealing washer over the Koaizawa plate since such is a known equivalent to an o-ring seal."

As explained above, washers are not the equivalent of an o-ring seal. There is no teaching in any of the references cited that would motivate one of skill in the art to

substitute a washer over the Koaizawa plate in replacement for the o-ring seal which is located in the shaft passage of Koaizawa. Further, applicants submit that, even if the references were combinable as the Examiner suggests, such a combination would not result in applicants' claimed invention. In particular, the passage referred to by the Examiner in Koaizawa indicates that "It has been proposed to perform the sealing by providing a seal member made of an o-ring in the elevating shaft passage of the upper lid 31 under which the elevating shaft 41 passes." If one were to substitute a washer for the o-ring in Koaizawa Figure 1 apparatus, that washer would have to be disposed within the shaft passage of the lid 31. However, rather than merely substituting a washer in the same location as the o-ring of Koaizawa, the Examiner is suggesting that it would have been obvious to place a sealing washer over the Koaizawa plate.

Applicants submit that there is no motivation to supply a washer over the Koaizawa plate. Applicants' claim requires a washer mounted about the handle, contacting the upper surface of the top plate and covering a portion of the central opening. Even if, assuming arguendo, one would consider using a washer in place of the o-ring utilized by Koaizawa, substitution of that washer in place of the o-ring in Koaizawa would not result in applicants' invention.

In addition, it should be recognized that the intended function (reliable sealing) of Koaizawa would be destroyed if the modification proposed by the Examiner is adapted. The Examiner indicated that applicants did not provide evidence as to how the intended function of Koaizawa would be destroyed. Repeatedly throughout Koaizawa, upper lid is described as being reliably sealed (see, for example, column 7, lines 27-30 and 44-53, column 8, lines 25-33, column 16, lines 20-25, column 18, lines 40-58, and column 27, lines 43-50). Ryoji is a leaky system allowing some exhaust gas to exit around the washer. The apparatus combination claimed provides a simple and cost effective system where reasonably good sealing is achieved at the upper end of the furnace, while the ill effects of air leakage are mitigated by the use of the flow restrictor.

## Conclusion

Based upon the above amendments, remarks, and papers of records, Applicants believe the pending claims of the above-captioned application are in allowable form and patentable over the prior art of record. Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Applicants believe that no extension of time is necessary to make this Reply timely. Should Applicants be in error, Applicants respectfully request that the Office grant such time extension pursuant to 37 C.F.R. § 1.136(a) as necessary to make this Reply timely, and hereby authorize the Office to charge any necessary fee or surcharge with respect to said time extension to the deposit account of the undersigned firm of attorneys, Deposit Account 03-3325.

Please direct any questions or comments to Robert L. Carlson at 607-974-3502.

Respectfully submitted,



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the air set up by the disturbance or wave-like agitation object (as an airplane) c : a disturbance in the air produced by the passage of an aircraft or propeller (< from the puffed at the loose ends of his scarf — Howard Hunt) d : dissipated current or force in the trail of an intellectual social movement : EDDY (hard to know how much is ~ of accomplishment that will last, and how much is the ~ of wave of opinion — A.L. Kroeber) (traveled there in the ~ of w. — J.R. Walsh) 13 : WASH SALE 14 a : the upper surface of member or material when given a slope to shed water : WEATHER b : a structure or receptacle shaped so as receive and carry off water

**wash** \ 'wɑːʃ \ *v.* [wash] 1 : capable of being washed without injury : WASHABLE (~ fabrics) (a ~ dress) (~ goods)

**washed** \ 'wɑːʃd \ *adj.* [perh. alter. (influenced by wash) of wearish] 1 : WASHY, WEAK (< their bodies of so weak and ~ a temper Francis Beaumont & John Fletcher)

**wa-sha** \ 'wɑːʃə \ *n., pl washa or washas usu cap 1 :* Chitimachan people of southeastern Louisiana 2 : a member of the Washa people

**wash-a-til-l-y** \ 'wɑːʃə'bɪl-ē-, 'wɑːʃ-, 'wɑːʃ-l- \ *n.* : the quality or state of being washable

**wash-able** \ 'wɑːʃəbəl-, 'wɑːʃ-, 'wɑːʃ-l-, + 'wɑːʃ-or-'wɑːʃ-l- \ *adj.* 1 : capable of being washed without suffering damage or loss of color (a ~ dress) 2 : soluble in water (~ointment bases — Amer. Druggists' C.)

**washable** \ 'wɑːʃ- \ *n.-s.* : a fabric or garment that may be washed without injury or change

**wash and wear** \ 'wɑːʃ- \ *adj.* of, relating to, or constituting a fabric or garment not needing to be ironed after washing

**washaway** \ 'wɑːʃ- \ *n.-s* [fr. the phrase wash away, fr. 'wash-away] Brit : WASHOUT

**wash ball** *n.* : a ball of toilet soap

**wash barrel** *n.* : a barrel in which split mackerel are washed with salt water to extract the blood before salting

**washbasin** \ 'wɑːʃ- \ *n.* : WASHBOWL

**washboard** \ 'wɑːʃ- \ *n., often attrib 1 :* a broad thin plank fixed along a gunwale or set on the sill of a lower deck port to keep out the sea — called also **washstrake, wasteboard** 2 : BASEBOARD 3 a : a corrugated rectangular surface (as of zinc or glass) in a wooden frame on which clothes or rubber in washing b : a road or pavement so worn by traffic as to be corrugated transversely c : a corrugated surface (as of glass or wood)

**washboiler** \ 'wɑːʃ- \ *n.* : a large metal vessel used for boiling clothes

**wash boring** *n.* : a boring system by which material loosened by a bit is borne to the surface in the annular space between the bit and casing by water forced down through the pipe bearing the bit

**wash bottle** *n.* : a bottle or flask provided with one bent tube passing through the stopper for directing a stream of water on anything to be washed or rinsed and with means for forcing (as by blowing into a second tube passing through the stopper or by squeezing if the bottle is flexible) the water through the tube

**washbowl** \ 'wɑːʃ- \ *n.* : a large bowl for water to wash one's hands and face — called also **washbasin**

**wash-brew** \ 'wɑːʃ-br-, 'wɑːʃ-l- \ *n., dial Eng.* : oatmeal boiled until gelatinous — FLEMING 1a

**wash brush** *n.* : a large brush for applying a wash

**wash bulkhead** *n.* : a bulkhead in a ballast tank to prevent excessive movement of liquid in the tank

**washcloth** \ 'wɑːʃ- \ *n.* : a cloth used for washing one's face and body

**wash-colored** \ 'wɑːʃ- \ *adj.* : colored as if with a wash or water-color

**washday** \ 'wɑːʃ- \ *n.* : a day regularly set aside (as once a week) for washing clothes (as of a family or institution) (on the evening of the second — Flora Thompson)

**wash dirt** *n.* : earth washed or to be washed for gold : WASHING STUFF

**wash-dish** \ 'wɑːʃ- \ *sense 2* 'wash- or 'wɑːʃ- \ *n.* 1 : WASHBOWL 2 [so called fr. the motion of its tail resembling the motion of one washing dishes] *dial Eng.* : PIED WAGTAIL

**wash down** *vt 1 :* to move or carry downward by action of water or other liquid ; *specif* : to facilitate the passage of food down the gullet with accompanying swallows of liquid (boiled a hot dog and washed it down with soda) 2 : to wash the whole length or extent of (washed down and scrubbed out with disinfectant, making sure that no corners or grooves . . . are missed out — Henry Wynnmalen)

**washdown** \ 'wɑːʃ- \ *adj* [wash down] : constructed with provision for washing contents downward (a ~ water closet)

**wash drawing** *n.* : water-color painting in or chiefly in washes esp. in black, white, and gray tones only

**washed past of WASH**

**washed-curd cheese** \ 'wɑːʃ- \ *[washed, past part. of 'wash]* : cheddar cheese in which the curd is washed before being pressed into forms to remove a portion of the whey, lactose, and soluble milk salts and produce a soft body with open texture

**washed metal** *n.* : iron treated so as to remove most of the silicon and phosphorus and not too much of the carbon

**washed-out** \ 'wɑːʃ- \ *adj* [fr. past part. of wash out] 1 a : faded in color : lacking in brightness or vividness (a very pale, washed-out blue — Eden Philpotts) b : depleted in vigor or animation : played out : EXHAUSTED (worked from seven in the morning until noon, and I was limp, washed-out — Richard Wright) 3 : ERODED (coal workings line the route in this hilly, washed-out section — Amer. Guide Series: Pa.)

**washed sale** *n.* : WASH SALE

**washed-up** \ 'wɑːʃ- \ *adj* [fr. past part. of wash up] 1 : ready for the discard : done for : played out (as far as he's concerned, you're washed-up nobody — Albert Morgan) 2 *usu washed up* 1 : at the end of an association or activity : ready to call it quits : THROUGH (The company was completely washed up with his wife . . . he never visited her — Morton Faber) (I'm washed up with the rackets — Allan Bruce)

**washen** *archaic past part of WASH*

**washer** \ 'wɑːʃə(r)-, 'wɑːʃ-, 'wɑːʃ-l-, + 'wɑːʃ-or-'wɑːʃ-l- \ *n.* 1 [ME *wassher*, fr. *wasshen* to wash + -er] 1 a : a person who washes ; *specif* : a worker who cleans by washing (as clothes, animals, or materials or products in processes of preparation, manufacture, or maintenance) b : a machine for washing, something : as (1) : a device for removing dirt and soluble impurities from pulp and paper stock (2) : WASHING MACHINE (3) : an apparatus or device for washing photographic materials to remove soluble chemicals (as produced by development or fixing) (4) : an apparatus in which gases are washed : SCRUBBER c (rotary ~) 2 [ME *fr.* the motion of its tail resembling the motion of one washing clothes or dishes] *dial Eng.* : PIED WAGTAIL 3 : any of various flat thin rings or perforated plates (as of metal or leather) used to join rings or assemblies to insure tightness, prevent leakage, or relieve friction — see LOCK WASHER, SPRING WASHER 4 [so called fr. its habit of washing its food before eating] : RACCOON



dashboard 3a

[illegible]